

App. No. 10/676,136
Office Action Dated May 5, 2006

REMARKS

Favorable reconsideration of this application is requested in view of the above amendments and the following remarks. Claim 11 is hereby amended. Claim 11 is amended editorially.

Claim 11 was objected to for an informality. Claim 11 is amended to address the concerns of the Examiner. Favorable reconsideration of claim 11 is requested.

Claims 1-4, 6, and 9-15 were rejected as being unpatentable over Tu (US 6,521,881), in view of Yonemoto (US 6,366,321), and further in view of Tanner (US 4,631,400). Applicants traverse this rejection. The combination of Tu, Yonemoto, and Tanner does not teach a solid state imaging device including an imaging semiconductor chip for outputting an image signal in which all transistors are formed of the same conductivity type, and an image processing semiconductor chip, to which the image signal is input, comprising CMOS transistors, as required by claim 1. The rejection relies on Tu to teach the claimed image processing semiconductor chip. However, Tu does not suggest that the image processing chip is comprised of CMOS transistors. The entire optical mouse taught by Tanner is formed of a single nMOS chip. Although Yonemoto is directed to a CMOS sensor, the reference does not disclose that the imaging device and the digital processing circuit for processing the image data captured by the imaging device constitutes one chip. The Examiner seems to contend one would be motivated to combine the references to simplify manufacturing or to obtain a more compact chip. However, such a motivation is not found in any of the references. Therefore, the rejection is based on improper hindsight.

Further, the chip taught by Tanner is directed to an optical mouse and therefore does not output an image signal, but rather a signal indicating the direction of movement that is determined based on the image signal. Therefore, the chip does cannot be considered to correspond to an imaging semiconductor chip for outputting an image signal.

The solid state imaging device required by claim 1 provides an imaging semiconductor

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chip that is formed of transistors of the same conductivity type, thereby preventing generation of noise due to through current. Claim 1 further requires that the image processing semiconductor chip is comprised of CMOS transistors, which is advantageous for miniaturization.

Favorable reconsideration of claims 1-4, 6, and 9-15 is requested.


Claims 7 and 8 were rejected as being unpatentable over Tu, Yonemoto, Tanner, and further in view of Tago (US 6,844,619). Applicants traverse this rejection. Claims 7 and 8 should be considered allowable for at least the same reasons as claim 1, from which they depend. Tago does not remedy the deficiencies of Tu, Yonemoto, and Tanner, as previously noted. Favorable reconsideration of claims 7 and 8 is requested.

In view of the above, favorable reconsideration in the form of a notice of allowance is requested. Any questions regarding this communication can be directed to the undersigned attorney, Douglas P. Mueller, Reg. No. 30,300, at (612)455-3804.

Respectfully Submitted,

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Douglas P. Mueller
Reg. No.: 30,300
Hamre, Schumann, Mueller & Larson, P.C.
225 South Sixth Street
Suite 2650
Minneapolis, MN 55402
612.455.3800

DPM:mfe